Table A.2.16 Main Yard SWMU 44 Summary of Boring Log and Analytical Data

Boring/ Date/ Report	Total Depth of Boring	Depth to Water[1]	Lithologic Description[2] (Observation Notes)	Maximum PID Response, ppm_v (Depth)	Sample Type[3]	Sample ID (Depth)	Analyses[4]	COC Concentrations Greater Than Delineation Criteria
S0986 12/18/02 PAOC 83	16	7.5	Fill: 0-14.5 (fly ash at 7.5,very slightly tarry and minor product sheen, jar test – LNAPL, black few small product globules and minor sheen at 7.5-14.5) Peat: 14.5-15 Clay: 15-16	644 (10-10.5)	O, S, F	S0986F1 (10-10.5)	V, S, M	Vanadium: 1370 mg/kg
S0924 11/25/02 PAOC 78	12	7.5	Fill: 0-12 (odor and staining at 9.5-10, vegetable oil like consistency of NAPL	22 (9-9.5)	O, S, F	S0924E3 (9-9.5)	V, S, M	Benzo(a)anthracene: 5.2 mg/kg **Benzo(a)pyrene: 2J mg/kg** Benzo(b)fluoranthene: 2.2J mg/kg Dibenzo(a,h)anthracene: 0.98J mg/kg Indeno(1,2,3-cd)pyrene: 1J mg/kg Arsenic: 48.2 mg/kg Iron: 129000 mg/kg
S0923 11/25/02 PAOC 78	12	5.5	Fill: 0-6 (black stain at 0.75-1) Clay: 11-12	28 (1-2)	O, U, F	S0923A2 (0.5-1)	V, S, M	Benzo(a)anthracene: 0.95J mg/kg **Benzo(a)pyrene: 1.1J mg/kg** Benzo(b)fluoranthene: 1.3J mg/kg Iron: 27500 mg/kg
S0897 11/19/02 PAOC 81	20	4	Fill: 0-18 (slag and black, maple syrup-like LNAPL at 9-11) Clay: 18-20	76 (10.5-11)	O, S, F	S0897F2 (10.5-11)	V, S, M	Benzo(a)anthracene: 2.8 mg/kg **Benzo(a)pyrene: 1J mg/kg** Benzo(b)fluoranthene: 1.3J mg/kg
S0863/ MW154 10/2/02 Full RFI AOC 24	20	4	Fill: 0-18 Silt: 18-20	5.5 (11.5-12)	P, U, F	S0863A4 (1.5-2)	V, S, M	Iron: 23100 mg/kg
					P, U, F	S0863 (1-3)	Phys. Char.	
					P, S, F	S0863C1/C2 (4-4.5/4.5-5)	V, S, M, SPLP metals	Iron: 34800 mg/kg SPLP aluminum: 2590 mg/L
					P, S, N	S0863J1 (18-18.5)	V, S, M	Iron: 79200 mg/kg

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					Water	MW154 10/17/02	V, S, M, water quality	None
S0842/ MW138 8/27/02 Full RFI SWMU 44	12	6	Fill: 0-9: Peat and clay: 9-10 Clay: 10-12	4.7 (2.53)	P, U, F	S0842A4 (1.5-2)	V, S, M	Iron: 28800 mg/kg
					P, U, F	S0842B2 (2.5-3)	V, S, M, SPLP metals	Iron: 23600 mg/kg SPLP Aluminum: 2.63 mg/L
					P, S, N	S0842F4 (11.5-2)	V, S, M	Iron: 23200 mg/kg
					Water	MW138 10/23/02	V, S, M water quality	None
S0841/ MW137 8/27/02 Full RFI SWMU 44	14	4	Fill: 0-12: Clay: 12-14 (black staining and petroleum odor from 12-12.2, organics present throughout)	4 (6.5-7)	O, U, F	S0841A4 (1.5-2)	V, S, M	Iron: 24800 mg/kg
					O, S, F	S0841C2 (4.5-5)	V, S, M	None
					O, S, N	S0841G2 (12.5-13)	V, S, M	Iron: 44400 mg/kg
					Water	MW137 10/24/02	V, S, M, water quality	None
H0724 3/22/02 RA/RI/RAWP Addendum	12	4	Fill	0	Water	H0724	Ammonia/ nitrate	None
H0723 3/22/02 RA/RI/RAWP Addendum	12	4	Fill	0	Water	H0722	Ammonia/ nitrate	None

Table A.2.16 Main Yard SWMU 44 Summary of Boring Log and Analytical Data

Boring/ Date/ Report	Total Depth of Boring	Depth to Water[1]	Lithologic Description[2] (Observation Notes)	Maximum PID Response, ppm_v (Depth)	Sample Type[3]	Sample ID (Depth)	Analyses[4]	COC Concentrations Greater Than Delineation Criteria
H0722 3/22/02 RA/RI/RAWP Addendum	12	4	Fill	0	Water	H0722	Ammonia/ nitrate	None
H0238 6/29/99 1st Groundwater Addendum SWMU 44	16	8	Fill: 0-14: (black stained, hydrocarbon odor at 6-8; black fly ash with black viscous thick liquid, hydrocarbon odor at 10-12, black thick viscous liquid at 12-14) Organic clay: 14-16	264 (11-12)	Water	H0238		**Benzene: 160 ug/l** Lead: 11.7 ug/l
H0236 6/26/99 1st Groundwater Addendum SWMU 44	12	2.5	Fill: 0-11.5: (black stained, trace black liquid, hydrocarbon odor at 10-11.5 Meadow Mat: 11.5-12	6.7 (10-11)	Water	H0236		1-Methylnaphthalene: 360 ug/l 2-Methylnaphthalene: 390 ug/l
H0201 1/22/99 SWMU 44 1st Groundwater Addendum	10	4	See H0127		Water	H0201		Lead: 26.9 ug/l
H0200 1/21/99 1st Groundwater Addendum SWMU 44	14	7	Fill: 0-13: (fly ash black stained flay or coal ash, hydrocarbon odor at 6.7-8; LNAPL bleeds from core, hydrocarbon odor at 8-10; hydrocarbon odor at 10-12 and 12.8-14)	85 (7-8)	Water	H0200		Lead: 10.9 ug/l
H0199 1/22/99 1st Groundwater Addendum SWMU 44	14	2.6	See SB0213		Water	H0199		Arsenic: 8.85 ug/l Lead: 94.3 ug/l
TPZ3GW 2/23/98 1st Groundwater SWMU 44	4	1.69	Fill: 0-4	0	None			

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TPZ2GW 2/23/98 1st Groundwater SWMU 44	4	1.8	Fill: 0-4	0	None			
TPZ1GW 2/23/98 1st Groundwater SWMU 44	10	3.6	Fill: 0-10: (strong hydrocarbon odor, some black staining at 0-2; slight hydrocarbon odor, some black staining at 4-6; oily product at bottom 4" of spoon at 6-8)	34 (1-6)	NAPL	S0420C1 (4-6)	GC fingerprint	#2 fuel oil
H0127 4/2/98 1st Groundwater SWMU 44	10	3.6	See TPZ1GW	34 (0-6)	Water	H0127A	V, S	Chrysene: 20.4 ug/l
H0126 4/2/98 1st Groundwater SWMU 44	14	7	Fill: 0-9: (ash-like material, staining at 8-9, strong hydrocarbon odor)	110 (7-8)	Water	H0126A	V, S	None
HP0093 9/3/97 1st Groundwater SWMU 44	14	5.5	See SB0213	4	Water	HP0093A	V, S	None
HP0070 11/13/96 1st OWSS (MY5)	8	6	Fill: 0-8: (petroleum odor and staining at 2-6)	0	Water	HP0070A	V, S, M	**Benzene: 2 ug/l** Antimony: 66.8 ug/l Arsenic: 1910 ug/l Barium: 11900 ug/l Beryllium: 96.8 ug/l Cadmium: 105 ug/l Cobalt: 1340 ug/l Lead: 5700 ug/l Mercury: 169 ug/l Nickel: 3150 ug/l Vanadium: 4060 ug/l
HP0068 11/13/96 1st OWSS (MY5)	10	6	Fill: 0-8: (trace odor at 2-4; petroleum odor and staining at 8-10)	0	Water	HP0068A	V, S, M	Arsenic: 22.3 ug/l Chromium: 138 ug/l Lead: 139 ug/l Nickel: 103 ug/l Vanadium: 830 ug/l

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SB0252 9/19/96 1st OWSS	8	5	Fill: 0-8	0	P, U, F	SB0252SC (4-6)	V, S, M	None
SB0213 6/5/96 1st Soils SWMU 44	14	2.2	Fill: 0-12: (petroleum staining at 2-4; petroleum odor and staining at 8-10)	48 (10-12)	P, S, F	SB0213SF (10-12)	V, S	None
SB0163 10/30/95 1st Soils SWMU 44	12	6	Fill: 0-11.8: (trace odor at 7.8-8) Meadow Mat: 11.8-12	0	P, S, F	SB0163SD (6-8)	V, S	None
SB0162 10/30/95 1st Soils SWMU 44	14	8	Fill: 0-13.5: (heavy petroleum staining at 5-5.3; trace petroleum odor at 8-10) Meadow Mat: 13.5-14	368 (4-6)	O, U, F	SB0162SC (4-6)	V, S	None
SB0049 10/30/95 1st Soils SWMU 44	10	7.5	Fill: 0-10: (petroleum odor and staining at 3.5-4, 5.5-10)	261 (8-10)	O, S, F	SB0049SE (8-10)	V, S	None
U044009 12/11/95 1st Soils SWMU 44	1		Fill: 0-1: Refusal at 1	0	None			
U044008 12/11/95 1st Soils SWMU 44	4	4	Fill: 0-4: (trace black staining at 2-4; refusal at 4)	0	None			
U044007 12/11/95 1st Soils	6	4.5	Fill: 0-6	0	None			
U044005 12/11/95 1st Soils SWMU 44	6	4.2	Fill: 0-6	0	None			
U044004 12/8/95 1st Soils SWMU 44	8	3.5	Fill: 0-8: (black staining at 2-4; trace black staining at 4-6; petroleum odor and staining at 7.3-8)	0	None			

NOTES:

Benzene and benzo(a)pyrene are highlighted in bold because they are indicator constituents of concern (COCs)

Shaded rows indicate samples collected from nearby SWMUs/AOCs

ppm_v = parts per million (volume basis)

All depths referenced on this summary table are in feet below the ground surface.

PID = Photoionization detector.

ID = Identifier.

mg/kg = milligrams per kilogram (equivalent to parts per million).

µg/L = micrograms per liter (equivalent to parts per million).

[1]Depth to water as observed during borehole advancement.

[2]"Fill" encountered within the completed borings was characteristically described as an asphalt layer (typical) underlain by a heterogeneous gravel to clay mixture of unconsolidated materials, ranging in color from tan to gray with occasional construction debris (e.g., brick) present. In some locations, the fill material is further characterized by containing a slag or beaded material, in which case it is noted within the table. Also noted on the table are any other olfactory or visual observations that indicate potential petroleum-type impacts within the fill unit were observed.

[3]P – property boundary, O – on-site, U – unsaturated, S – saturated, F – fill, N – native. "None" indicates that no sample was collected.

[4]V – VOCs, S – SVOCs, M – metals, Pb – lead, TOL – total organic lead, TEL – tetraethyl lead, TPH – Total Petroleum Hydrocarbons; SPLP– Synthetic Precipitation Leaching Procedure; -Phys. Char.--physical characteristics.